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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/980,168	04/26/2002	Chun Byung Yang	5333-02500	1183

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EXAMINER	
NGUYEN, CAM N	

ART UNIT	PAPER NUMBER
1754	

DATE MAILED: 11/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/980,168	YANG, CHUN BYUNG	
	Examiner	Art Unit	
	Cam N Nguyen	1754	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on 24 September 2003.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☐ Claim(s) 6-15,17-30 and 32 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) 6-15, 17-30, & 32 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

1. Applicants' remarks and amendments, filed on September 24, 2003, have been carefully considered. Claims 16 & 31 have been canceled. Claims 6, 14, & 30 have been amended.

Claims 6-15, 17-30, & 32 remain pending in this application.

Claim Rejections - 35 USC § 102(a)/103

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless -
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 6-15, 17-29, & 32 are rejected under 35 U.S.C. 102(a) as being anticipated by Toida et al., "hereinafter Toida", (US Pat. 5,877,265).

Toida discloses a solid titanium catalyst containing magnesium, titanium, and silicon (see col. 26, ln 18-27).

Recitation of product-by-process in the claims is noted. While the catalyst of Toida is not made by the same process, the catalyst made is the same as the claimed catalyst. Further, the process limitations have no bearing on the patentability of the product because it has been held that "even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even the prior art product was made by a different process." See *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985).

With respect to the metal concentrations and molar ratios in claim 32, it appears met by the teaching of the reference (see Toida at col. 26, ln 20-27 & ln 47-54).

Claim Rejections - 35 USC § 102(e)

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless -
>
> (e) the invention was described in-
> (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or
> (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes

of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

5. Claims 6-15, 17-30, & 32 are rejected under 35 U.S.C. 102(e) as being anticipated by Lee et al., "hereinafter Lee", (US Pat. 6,291,385 B1).

Lee discloses a solid titanium catalyst and a process of preparing said catalyst by (1) producing a liquid magnesium solution by reacting a mixture of a magnesium compound and an aluminum compound with alcohol in a solvent compound of inert hydrocarbon, (2) getting the liquefied magnesium solution to react with an ester compound having at least one hydroxy group and a silane compound having at least one alkoxy compound, as electron donors, and then by reacting it by addition with a titanium compound (see col. 2, ln 20-29). Suitable magnesium compounds, ester compounds, silicon compounds, and titanium compounds are shown at col. 2, ln 30- col. 4, ln 29), which includes the claimed compounds. The claimed metal concentrations are also met by the reference (see col. 3, ln 51-55 & col. 4, ln 24-29).

Lee discloses the claimed solid titanium catalyst and its method of production, thus anticipates the claims.

Response to Applicants' Arguments

6. Applicants' amendment/response filed on 9/24/03 has been fully considered, but not deemed persuasive for the following reasons.

Applicants urged, that "the Toida reference does not appear to teach or suggest the features of the claims including, but not limited to, the successive reactions of a magnesium

compound solution with an ester compound and a silicon alkoxy compound, and reaction of the resulting product with a titanium compound and a silicon halide compound" (Applicants' response page 9, second paragraph). This is noted, but not found persuasive because claims 6-15, 17-29, & 32 are drawn to a solid titanium catalyst and not a process of making the solid titanium catalyst. Therefore, the limitations of the process steps in these claims have no bearing on the patentablity of the catalyst claims. See *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985).

Applicants requested to separately consider each of the dependent claims for patentability is also noted. The dependent claims 7-15 & 17-29 claim the specific compounds used in the process of making the solid titanium catalyst, and that the limitations as recited in these claims are considered product-by-process limitations as discussed in the precedent paragraph.

Applicants further urged, that "Lee does not teach the mixing of a silicon compound with the titanium compound. The mixing of the silicon compound with titanium would allow reaction of the silicon with the titanium to occur prior to introducing any magnesium. As such, the resulting compound would differ from any product obtained by reacting just a titanium compound with a magnesium solution" (Applicants' response page 13, third paragraph). This is not found persuasive because applicants have not explained or provided the reasons as to how the addition of the second silicon compound (or more silicon compound) in the last step would result in a catalyst having a different structure than that of Lee's. The reason that one would add more silicon compound in the last step is because the silicon compound was not added enough in the

second step. It is considered there is no patentably distinct between the process of Lee and the claimed process since both teach to make the same catalyst, which is a solid titanium catalyst.

It is the Examiner's position to conclude that the claimed catalyst and method of production are the same as disclosed in the references, thus the rejections are maintained.

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Conclusion

8. Claims 6-15, 17-~~29~~ 30, & 32 are pending. Claims 6-15, 17-~~29~~ 30, & 32 are rejected. No claims are allowed.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Cam Nguyen, whose telephone number is (703) 305-3923. The examiner can normally be reached on M-F from 8:30 am. to 6:00 pm, with alternative Monday off.

The appropriate fax phone number for the organization where this application or proceeding is assigned is (703) 872-9310 (before finals) and (703) 872-9311 (after-final).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Cam Nguyen
Primary Examiner
Art Unit: 1754

Nguyen/cnn CNN
November 25, 2003